AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A bone plate comprising:

an upper surface;

a lower surface; and

a plurality of holes extending through the upper surface and the lower surfaces~~;~~ , the upper surface of the bone plate including a first upper portion and at least one second tapered portion, the second tapered portion located at at least one of the holes and sloping in a direction toward the lower surface such that a gap is formed between the first upper portion of the upper surface of the bone plate and an upper portion of a bone screw secured in the hole;

wherein at least one of the holes includes a protrusion disposed on the lower surface and at least partially surrounding the hole, and internal threads extending substantially from the upper surface to the lower surface~~; wherein~~ , and the bone plate defines a nominal plate thickness in regions between the holes, and the protrusion defines an increased plate thickness that is about 1.5 to 2 times greater than the nominal plate thickness.

2. (Canceled)

3. (Canceled)

4. (Previously Presented) The bone plate of claim 1,wherein the nominal plate thickness is about 1 mm and the protrusion extends from the lower surface by about 0.8 mm.

5. (Previously Presented) The bone plate of claim 1, wherein the protrusion is substantially annular.

6. (Previously Presented) The bone plate of claim 1, wherein the protrusion minimizes contact between the lower surface and a bone.

7. (Previously Presented) The bone plate of claim 1, wherein the hole defines a central axis, and the protrusion tapers radially inward with respect to the central axis in a direction from the upper surface toward the lower surface.

8. (Canceled)

9. (Original) The bone plate of claim 7, wherein the protrusion tapers radially inward, and defines a taper angle of about 40° to about 100°.

10. (Previously Presented) The bone plate of claim 1, wherein the internal thread is adapted for engaging a threaded screw-head.

11. (Previously Presented) The bone plate of claim 1, wherein the hole defines a central axis, and the internal thread tapers radially inward with respect to the central axis in a direction from the upper surface toward the lower surface.

12. (Original) The bone plate of claim 11, wherein the internal thread defines a taper angle of about 10° to about 30°.

13. (Original) The bone plate of claim 11, further comprising a bone screw having a screw-head with an external thread disposed on the screw-head, wherein the hole defines an internal thread taper angle, and the screw-head defines an external thread taper angle that is substantially equal to the internal thread taper angle.

14. (Original) The bone plate of claim 13, wherein the internal thread taper angle and the external thread taper angle are about 20°.

15. (Original) The bone plate of claim 1, wherein the bone plate defines a longitudinal axis, and the plurality of holes are spaced apart substantially along the longitudinal axis.

16. (Currently Amended) A bone plate comprising:

an upper surface <u>having a first upper portion</u>;

a lower surface; and

a plurality of threaded holes extending through the upper and lower surfaces, the threaded holes having threads extending substantially from the upper surface to the lower surface for engaging threaded screw-heads; and

a tapered flange formed on the lower surface and at least partially around one of the holes, the tapered flange defining a corresponding tapered ~~recess~~ <u>portion</u> in the upper surface <u>of the bone plate, the tapered portion sloping in a direction toward the lower surface, such that a gap is formed between the first upper portion of the upper surface of the bone plate and an upper portion of a bone screw secured in the hole</u>;

wherein the bone plate defines a nominal plate thickness in regions between the holes, and the tapered flange defines an increased plate thickness that is about 1.5 to 2 times greater than the nominal plate thickness.

17. (Previously Presented) The bone plate of claim 16, wherein:

the hole defines a central axis;

the tapered flange tapers radially inward with respect to the central axis in a direction from the upper surface toward the lower surface; and

the tapered flange defines a flange taper angle of about 40° to about 100°.

18. (Previously Presented) The bone plate of claim 17, wherein the threaded hole tapers radially inward with respect to the central axis in a direction from the upper surface toward the lower surface, and the threaded hole defines a threaded hole taper angle of about 10° to about 30°.

19. (Original) The bone plate of claim 18, wherein the tapered flange is substantially annular.

20. (Currently Amended) A bone plate system comprising:

a bone plate including:

an upper surface;

a lower surface;

a plurality of tapered holes extending through the upper and lower surfaces, the holes having an internal thread disposed thereon, and the upper surface of the bone plate including a first upper portion and at least one second tapered portion, the second tapered portion located at at least one of the holes and sloping in a direction toward the lower surface such that a gap is formed between the first upper portion of the upper surface of the bone plate and an upper portion of a bone screw secured in the hole; and

an annular protrusion formed at least partially around at least one of the holes and extending from the lower surface, the protrusion being substantially concentric with the hole;

wherein the bone plate defines a nominal plate thickness in regions between the holes, and the protrusion defines an increased plate thickness that is about 1.5 to 2 times greater than the nominal plate thickness; and

a bone screw having a tapered screw-head with an external thread disposed thereon for engaging the internal thread;

wherein the internal thread defines an internal thread taper angle, and the external thread defines an external thread taper angle that is substantially equal to the internal thread taper angle.

21. (Canceled)

22. (Previously Presented) The bone plate system of claim 20, wherein the annular protrusion tapers radially inward in a direction from the upper surface toward the lower surface.

23. (Canceled)

24. (Currently Amended) A bone plate comprising:

an upper surface; ~~and~~

a lower surface with ~~an indentation formed on the upper surface and~~ a ~~corresponding~~ protrusion formed on the lower surface and a threaded hole extending through the protrusion substantially from the upper surface to the lower surface;

wherein the upper surface of the bone plate includes a first upper portion and at least one second tapered portion, located at the threaded hole, sloping in a direction toward the lower surface, such that a gap is formed between the first upper portion of the upper surface of the bone plate and an upper portion of a bone screw secured in the hole; and

wherein the bone plate defines a nominal plate thickness in regions distal to the threaded hole ~~between the holes~~, and the protrusion defines an increased plate thickness that is about 1.5 to 2 times greater than the nominal plate thickness~~; and~~ .

25. (Previously Presented) The bone plate of claim 24, wherein the threaded hole tapers radially inward in a direction from the upper surface toward the lower surface.

26. (Previously Presented) The bone plate of claim 24, wherein the protrusion is substantially annular, and the threaded hole is coaxial with the protrusion.

27. (Currently Amended) A bone plate comprising:

an upper surface having a first upper portion and at least one second tapered portion;

a lower surface having a protrusion formed thereon;

a tapered hole extending through the protrusion from the upper surface to the lower surface, the tapered hole having internal threads for engaging a head of a bone screw;

wherein the at least one second tapered portion, located at the tapered hole, slopes in a direction toward the lower surface, such that a gap is formed between the first upper portion of the upper surface of the bone plate and an upper portion of a bone screw secured in the hole; and

wherein the bone plate defines a nominal plate thickness in regions distal to the tapered hole ~~between the holes~~, and the protrusion defines an increased plate thickness that is about 1.5 to 2 times greater than the nominal plate thickness~~; and~~ .

28. (Previously Presented) The bone plate of claim 27, wherein the protrusion is substantially annular.

29. (Previously Presented) The bone plate of claim 28, wherein the tapered hole is substantially coaxial with the protrusion.

30. (Canceled)

31. (Previously Presented) The bone plate of claim 27, wherein the tapered hole defines a central axis, and the tapered hole tapers radially inward with respect to the central axis in a direction from the upper surface toward the lower surface.

32. (Previously Presented) The bone plate of claim 27, wherein the protrusion minimizes contact between the lower surface and a bone.